AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claims 1-9 (canceled)

Claim 10 (currently amended): The method of claim ~~1, characterized in that~~ 37 wherein the detection of the presence of a polymorphism is done at amino acid level.

Claims 11-31 (canceled)

Claim 32 (New): Polymorphism characteristic for an increased or reduced risk for hypercholesterolemia in humans wherein said polymorphism occurs in a sterol regulator element binding protein (SREBP) and said polymorphism comprises a sequence set forth in Seq. Id. No. 3.

Claim 33 (New): Polymorphism of claim 32 wherein said polymorphism occurs in the SREBP-1 or SREBP-2.

Claim 34 (New): Polymorphism of claim 32 wherein said polymorphism shows a recognition site for XmnT.

Claim 35 (New): DNA and/or RNA chip wherein that said chip comprises at least one polymorphism in an SREBP of claim 32.

Claim 36 (New): DNA and/or RNA chip of claim 35 comprising said polymorphism in presence of other polymorphisms which are diagnostic for the risk assessment of hypercholesterolemia and/or Alzheimer's disease.

Claim 37(New): A method for the detection of an increased or decreased disease risk and/or mortality risk and/or an increased or decreased sensitivity to a method of therapy or their side effects wherein after taking a blood or a tissue sample, respectively, said blood or tissue, respectively, is examined for the presence of a polymorphism in at least one sterol regulator element binding protein (SREBP) wherein said polymorphism comprises a sequence set forth in Seq. Id. No. 3.

Claim 38 (New): The method of claim 37 wherein said SREBP is selected from the group consisting of SREBP-1 and SREBP-2.

Claim 39 (New): The method according to claim 37 wherein said polymorphism leads to an increased or decreased activation of genes of lipid metabolism.

Claim 40 (New): The method of claim 37 wherein said polymorphism leads to an increased or decreased plasma concentration of at least one lipid.

Claim 41 (New): The method of claim 37 wherein said polymorphism shows a recognition site for a cleavage with *Xmn I* lying within said polymorphism and that the examination is done using said recognition sequence.

Claim 42 (New): A method for the detection of an increased or reduced disease risk and/or mortality risk and/or an increased or reduced sensitivity of to a method of therapy or their side effects wherein after taking blood or a tissue sample, respectively, and DNA extraction at least a fragment of a sterol regulator element binding protein (SREBP) exon comprising a polymorphism comprising a sequence as set forth in Seq. Id. No. 3 is amplified using two oligonucleotide sequences selected from the group consisting of:

S1.18cF (Seq. Id. No. 9):
5'-TTATTTATAATCTGGGTTTTGTGTC-3' and
S1.18cR (Seq. Id. No. 10):
5'-GGGAAGAGCTAAGTTAAAAGTTGTG-3' or
***Eco*R I.S1.18cF** (Seq. Io. No. 11):
5'- CGGAATTCTGAAATTATTTATAATCTGGGTTTTGTGTC -3' and
***Eco*R I.S1.18cR** (Seq. Id. No. 12):
5'-CGGAATTCATCGGGGAAGAGCTAAGTTAAAAGTTGTG-3'

and wherein the product of said amplification is subjected to a digestion with a suitable restriction enzyme or a denaturation and that the digestion products or denaturation products, respectively, are separated electrophoretically.

Claim 43 (New): The method of claim 42 wherein said polymorphism is characteristic for an increased or decreased risk for hypercholesterolemia in humans.

Claim 44 (New): The method of claim 42 wherein said polymorphism has been detected by amplification and analysis of an SREBP sequence of interest, comparison of the exon regions of said sequence of interest to the exon regions of the type of sequence of the corresponding SREBP which is most often found in a population and examination of the sequences with found differences for dysfunction.

Claim 45 (New): The method of claim 44 wherein the differences lead to a recognition site for a restriction enzyme.

Claim 46 (New): Use of a method of claim 42 for the detection of an increased or reduced risk for hypercholesterolemia and/or Alzheimer's disease.

Claim 47 (New): Use of a method of claim 42 for the detection of an increased or reduced risk for the occurrence of side effects associated with HIV therapy.

Claim 48 (New): Use of a method of claim 42 for the detection of an increased or reduced mortality risk.

Claim 49 (New): Use of a polymorphism of claim 32 as marker for the determination of an increased or reduced risk for the outbreak of a disease.

Claim 50 (New): Use of claim 49 wherein said disease is selected from the group consisting of hypercholesterolemia and Alzheimer's disease.

Claim 51 (New): Use of polymorphism of claim 32 for the determination of an increased or reduced risk for the occurrence of side effects associated with HIV therapy.

Claim 52 (New): Use of a polymorphism of claim 32 for the determination of an increased or reduced mortality risk.

Claim 53 (New): Use of a polymorphism of claim 32 for the evaluation of a method of treatment for a disease selected from the group consisting of hypercholesterolemia, Alzheimer's disease and HIV, or for drug screening.

Claim 54 (New): Use of a chip of claim 35 for the determination of an increased or reduced risk for the occurrence of side effects associated with HIV therapy.

Claim 55 (New): Use of chip of claim 35 for the determination of a reduced an increased or reduced mortality risk.

Claim 56 (New): Use of a chip of claim 35 for the evaluation of a method of treatment for a disease selected from the group consisting of hypercholesterolemia, Alzheimer's disease and HIV or for drug screening.

Claim 57 (New): The method according to claim 37 wherein said polymorphism leads to an increased or decreased activation of genes of cholesterol metabolism.

Claim 58 (New): The method of claim 37 wherein said polymorphism leads to an increased or decreased plasma concentration of cholesterol.

Claim 59 (New): Use of a method of claim 42 for the detection of an increased or reduced risk for the occurrence of side effects associated with therapy with protease inhibitors.

Claim 60 (New): Use of polymorphism of claim 32 for the determination of an increased or reduced risk for the occurrence of side effects associated with therapy with protease inhibitors.

Claim 61 (New): Use of a chip of claim 35 for the determination of an increased or reduced risk for the recurrence of side effects associated with therapy with protease inhibitors.